

ABSTRACT

A process for rectificatively separating fluids ~~comprising~~ including (meth)acrylic monomers in a rectification column by directly cooling the vapor ~~comprising~~ including (meth)acrylic monomers rising to the top of the rectification column to form top condensate ~~comprising~~ including (meth)acrylic monomers, the condensation space at the top of the column being separated from the region of the rectification column containing the separating internals only by at least one chimney tray from which the top condensate formed is removed from the rectification column, which ~~comprises~~ includes effecting the direct cooling of the vapor in the condensation space in at least two spray zones which are spatially successive and are flowed through by vapor by spraying supercooled top condensate ~~comprising~~ including added polymerization inhibitor, and the temperature of the sprayed supercooled top condensate becoming lower from spray zone to spray zone in the ~~flow~~ flown direction of the vapor.